

**ABSTRACT**

A method and apparatus for charging batteries in a system of batteries. The method and apparatus involve producing a set of state of charge signals indicative of the states of charge of each battery in the system, successively identifying, from the state of charge signals, a most discharged battery in the system and applying a charging current to the most discharged battery for at least part of a first period of time less than a period of time required to fully charge the most discharged battery before identifying a succeeding most discharged battery in said system. The batteries are charged according to a dynamic charging sequence in which batteries are added into the charging sequence in order of increasing state of charge as batteries already in the charging sequence are charged to exceed the state of charge of a battery having the next higher state of charge relative to the state of charge of the batteries already in the charging sequence.